

Authorization Basis Change Notice

ABCN No.¹: ABCN-W375-00-00049

Rev No.: 0

Initiating document (DCA, drawing, procedure, etc.):

BNFL-TWP-SER-003, Rev. 6, Radiation Protection Program for Design and Construction

DOE Letter 00-RU-0428 from D. Gibbs to P. Strawbridge, Regulatory Unit (RU) Comments on the Withdrawn BNFL Inc. Radiation Protection Program (RPP) for Design and Construction, Rev. 4

DOE Letter 00-RU-0507 from D. Gibbs to P. Strawbridge, Regulatory Unit (RU) Disapproval of Authorization Basis Amendment Request, ABAR-W375-00-00011, Unrestricted Area Dose Rates

Affected AB document(s) (SRD, ISMP, etc.):

BNFL-TWP-SER-003, Rev. 5, Radiation Protection Program for Design, and BNFL-5193-SRD-01-02, Rev. 3, Safety Requirements Document Volume II

A. Describe the proposed design or administrative control (procedure, program, plan, or management process) change.

1. Update the Radiation Protection Program (RPP) to include plans and measures appropriate for assuring radiological safety during WTP construction activities.
2. Replace reference to ISMP Sections 2.3 and 3.9.1.2 as implementing standards in SRD Vol. II Safety Criterion 2.0-3 with DOE Implementation Guide G 441.1-2, *Occupational ALARA Program Guide*.
3. Update SRD references to superceded DOE Implementation Guides with the current version of each affected Implementation Guide.

B. Describe the reason for the proposed change.

1. A revision to the RPP for Design is required because construction activities are outside the current scope of the program. Construction activities may introduce radiological hazards due to the potential presence of radioactive material on the construction site from past or current Hanford Site operations. Additional plans and measures are necessary to minimize potential exposure to radioactive material and to assure worker, public, and environmental protection. As required by 10 CFR 835.101(g)(2), an update of the RPP shall be submitted to DOE prior to the initiation of activities not within the scope of the RPP.
2. The implementing standard is being revised to DOE Implementation Guide G 441.1-2, *Occupational ALARA Program Guide*, as part of the effort to remove references to the ISMP as implementing standards in the SRD.
3. DOE Letter 00-RU-0507 identified several SRD implementing standards as outdated documents that are associated with superceded federal regulations. The proposed change would replace the outdated references with the current DOE Implementation Guides that are compliant with the existing federal regulation, 10 CFR 835, *Occupational Radiation Protection*.

C. List the affected sections of the changed AB document and any other affected AB document, and perform a comparison of the proposed AB change against those sections or documents.

1. The RPP has been completely rewritten to conform to the established Hanford Site format for such programs. As such, all sections of the previous version, *Radiation Protection Program for Design*, Revision 5, are affected by this change.
2. SRD Vol. II Safety Criterion 2.0-3: The implementing standard for this safety criterion will be changed from ISMP Sections 2.3 and 3.9.1.2 to DOE Implementation Guide G 441.1-2, *Occupational ALARA Program Guide*.
3. The proposed RPP for Design and Construction references the current set of DOE Implementation Guides that

¹ The ABCN document number is obtained from Project Document Control.² The format, content, and level-of-detail associated with an acceptable safety evaluation is highly dependent on the nature of the proposed revision to the AB. Rather than establishing comprehensive guidance on appropriate evaluation format, content, and level-of-detail, the written evaluation should establish the most fundamental basis that can be applied to evaluating proposed revisions. There is a wide range of acceptable safety evaluation approaches. Also, the appropriate degree of rigor and documentation associated with the safety evaluation should be tailored to the specific AB revision. The Regulatory Unit (in RL/REG-97-13) does not indicate that an explicit and detail case be made and documented showing that the fundamental criteria have been satisfied for all revisions to the authorization basis.

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are compliant with 10 CFR 835, Occupational Radiation Protection. However, the following pages from BNFL-5193-SRD-01-02, Revision 3, *Safety Requirements Document Volume II*, reference outdated DOE Implementation Guides:

Page 5-1, Safety Criterion 5.0-1, Implementing Codes and Standards, G-10 CFR 835/B1 Radiation Protection Program.

Page 5-3, Safety Criterion 5.1-3, Implementing Codes and Standards, G-N 5400.9/M1 Sealed Radioactive Source Accountability and Control.

Page 5-3, Safety Criterion 5.1-4, Implementing Codes and Standards, G-N 5400.9/M1 Sealed Radioactive Source Accountability and Control.

Page 5-4, Safety Criterion 5.1-6, Implementing Codes and Standards, G-10 CFR 835/G1 Posting and Labeling for Radiation Control.

Page 5-8, Safety Criterion 5.3-2, Implementing Codes and Standards, G-10 CFR 835/B2 Occupational ALARA Program.

Page 8-1, Safety Criterion 8.0-2, Implementing Codes and Standards, G-10 CFR 835/B2 Occupational ALARA Program.

Page F-1, Appendix F, Section 1.0, reference to G-10 CFR 835/B2 Occupational ALARA Program.

D. Perform a written evaluation (use separate sheets) that demonstrates that the revision to the AB²:

1. Will continue to comply with all applicable laws and regulations, conform to top-level safety standards, and provide adequate safety.
2. Will continue to conform to the original submittal requirements associated with the authorization basis document(s) affected by the revision.
3. Will not result in inconsistencies with other commitments and descriptions contained in the authorization basis or an authorization agreement.

E. Describe the implementation schedule for the proposed change. Include reference to all affected documents (AB and otherwise) to ensure an accurate representation of the schedule.

In accordance with 10 CFR 835.101(f), following approval of the RPP by DOE, the affected AB documents will be implemented within 180 days or prior to start of WTP construction activities, whichever occurs earlier.

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F. Answer the following questions to determine if the proposed revision to the AB requires prior approval by the Regulatory Unit (RU).

1. Does the revision involve the deletion or modification of a standard previously identified or established in the approved SRD? ☒ Yes ☐ No

SRD Vol. II Safety Criterion 2.0-3 references ISMP Sections 2.3 and 3.9.1.2 as implementing standards. These ISMP sections are being replaced by DOE Implementation Guide G 441.1-2, Occupational ALARA Program Guide.

The SRD lists several implementing standards that are outdated documents associated with superceded federal regulations. The proposed change would replace these outdated references with the current DOE Implementation Guides that are compliant with existing federal regulation, 10 CFR 835, Occupational Radiation Protection, and consistent with the proposed RPP for Design and Construction.

Explain:

2. Does the revision result in a reduction in commitment currently described in the AB? ☐ Yes ☒ No

DOE Implementation Guide G 441.1-2, Occupational ALARA Program Guide, is more responsive to the SRD safety criterion than the ISMP sections it replaces; therefore, the level of commitment is not reduced.

Replacing outdated implementing standards referenced in the SRD is necessary to meet CHG's commitment to develop and implement a Radiation Protection Program compliant with 10 CFR 835, Occupational Radiation Protection. The proposed change will ensure compliance with the existing federal regulation and not result in any reduction in commitment.

Explain:

3. Does the revision result in a reduction in the effectiveness of any procedure, program, plan, or management process described in the AB? ☐ Yes ☒ No

G 441.1-2 is more responsive to the SRD safety criterion than the referenced ISMP sections it replaces; therefore, the effectiveness of the ALARA design program is not reduced.

Replacing superceded references in the SRD with the current DOE Implementation Guide references ensures compliance with the existing federal regulation, 10 CFR 835, Occupational Radiation Protection, while enhancing the effectiveness of the Radiation Protection Program.

Explain:

If all the answers to questions F1-F3 are no, then the AB change can be made without prior RU approval. If the answer to question F1 is yes, then follow the directions in item G and attach to this ABCN. If the answer to question F2 or F3 is yes, then follow the directions in item H and attach to this ABCN.

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- G. If the revision involves the deletion or modification of a standard previously identified in the approved SRD, provide a certification that the revised SRD identifies a set of standards that continues to provide adequate safety, comply with all applicable laws and regulations, and conform to top-level safety standards.
- H. If the revision results in a reduction in commitment or reduction in effectiveness currently described in the AB justify the changes and demonstrate that the proposed change is safe. Consider a line-by-line comparison justification or, alternatively, a "first principles" justification (consult ES&H).

Obtain all signatures and process through PDC for issue and distribution. If prior RU approval is required, prepare a formal cover letter and transmit, with attachments, to the RU. This cover letter/ABCN package constitutes a request to amend the Authorization Basis.

If a "decision to deviate" from the AB will be used while this ABCN is pending, the Preparer and the Reviewer must sign below before entering the deviation option (see K70P551 for details on deviating from the AB).

Attachments:

1. Copies of the AB document(s) or appropriate excerpt showing the proposed revision(s).
2. Written evaluation from D, above.
3. The certification from G, above, if applicable.
4. The justification from H, above, if applicable.

Preparer ³ :	_____	Date:	_____
Reviewer ³ :	_____	Date:	_____
Manager, ES&H:	_____	Date:	_____
Manager, QA:	_____	Date:	_____
Chair, PSC:	_____	Date:	_____
General Manager, RPP-WTP:	_____	Date:	_____

If a Decision to Deviate (DTD) from the AB has been initiated, enter the DTD and Deficiency Report numbers here:

ABCN incorporated in revision _____ of _____

³ The Preparer and Reviewer must have received Authorization Basis maintenance training.

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ABCN closed by: _____

Signature _____ Date _____